

the Beacon

Don't Miss the
Annual Meeting!

The Monthly Publication of the Maine Section, IEEE www.ieee.org/maine

Maine Section Annual Meeting set for Friday, May 31st

by Dave Potts, Section Chair

May '02
Volume 11
Number 6

Officers

Chair:

David Potts

Vice Chair:

Daniel Martin

Treasurer:

Merlin Smith

Secretary:

Thomas Carbone

Chair, Comm. Chapter:

{Open}

Chair, CS/EDS

Chapter:

Steve Adler

Chair, PES/IAS

Chapter:

David Conroy

I took the cover off my boat a few weeks ago and have been scraping, stripping and scrubbing ever since. I've got a nice burn on the back of my left hand where I inadvertently brushed it against the metal nozzle of the heat gun. I banged my shins and skinned my knuckles while squeezing myself into the cockpit lockers to replace the corroded fuel tank vent. My wallet is definitely lighter after procuring the necessary paint, filters, gaskets and other routine annual expenditures - too light to consider tackling more of the deferred maintenance items, let alone dream about hitting the wish list. All this, just so I can get out on Casco Bay, but all you have to do is come to the Annual Meeting!

The 2002 Maine Section Annual Meeting will be held on Friday, May 31st. We will kick it off with a 3 hour tour of Casco Bay aboard the ferry Bay Mist (I'm told that the mate is a mighty sailin' man, the skipper brave and sure). We'll meet at the Casco Bay Ferry Terminal at noon (you should arrange for your own lunch prior to the cruise - luncheon opportunities abound in the Old Port area). A cash bar will be available on the boat. After the cruise, we will reconvene at the Down East Village Motel and Restaurant on Route 1 in Yarmouth, where we will enjoy a buffet dinner and hear presentations on MEMS in biology and chemical analysis, the technology of mapmaking, and the strange and the fascinating world of quantum optics and its applications.

The full itinerary for the day is listed below. During the business meeting, a slate of nominees will be offered for election as 2003 Maine Section officers. (See announcement on page 2.)

The cost for all events is \$35 (\$20 for Student Members). Tickets for the cruise can be purchased separately at \$15/adult and \$5/child (under 12). Family and friends are encouraged to attend (if children under 12 are attending the dinner, you may opt to have them order a selection off the children's menu in lieu of the buffet. Cost would then be just \$5 for the boat plus actual dinner charges). You may arrange for your own overnight accommodations, if desired, at the Down East Village Motel by calling them at 207-846-5161 (mention that you are attending the IEEE meeting for a 10% discount off their regular rates).

Reservations are requested by Wed. May 22 and pre-payment is appreciated. You can make your reservations online at the Maine Section website: <http://www.ieee.org/maine> or by contacting Ian Goepfert at 761-3156 or via email at Ian.Goepfert@FairchildSemi.com. Checks should be sent to:

Ian Goepfert
82 Running Hill Rd, 35-2E
South Portland, ME 04106

12:00 Noon: Assemble at Casco Bay Ferry Terminal
12:30-3:30 PM: Casco Bay Cruise aboard Bay Mist
4:00 PM: Social hour-Assemble at Down East Village Restaurant
5:00 PM: **MicroInstruments for Biological and Chemical Analysis**,
Professor Rosemary Smith, U.C. Davis
5:45 PM: Technology of Map Making, To be announced, DeLorme
6:30 PM: Buffet Dinner
7:30 PM: Dessert and Section Business Meeting
8:00 PM: **Quantum Image Processing and Holography**,
Professor Bahaa Saleh, Chairman ECE Dept., B.U.

Come See the Dedication of an IEEE Milestone in Maine

That's right! Right here in the good old state of Maine there will be a dedication of a milestone in electrical engineering. On July 11, 1962, the first transatlantic transmission of a television signal occurred. The transmission was sent from a Radome in Andover, Maine and received by a twin station in Pleumeur-Bodou, France via the Telstar satellite. The success of the Telstar and earth stations, the first built for active satellite communications, illustrated the potential of a future worldwide satellite system to provide communications between continents.



The Old Andover Site

Come join us for the 40th anniversary of this historic engineering event and the dedication of an IEEE milestone plaque. We will celebrate this engineering feat with a teleconference and dedication of an IEEE Milestone at all three sites of the earth stations, - Andover, Maine; Pleumeur-Bodou, France; and Goonhilly, England. Please join us in Andover for this historic event. The tentative schedule for the day is listed below.

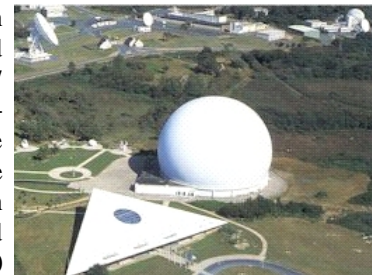
Prior to Telstar, telephone cables laid between France and the United States in 1956, provided an extremely limited capacity of only 36 channels. The transmission of televised programming was non-existent. Programs were recorded manually on a magnetic tape, and then dispatched by airplane courier to its

destination studio, where it would be "replayed" in order to disseminate its contents to spectators.

In April 1961, a multi-national agreement was signed between the American Telephone and Telegraph Company (AT&T), Bell Telephone Laboratories (Bell Labs), NASA, the British Post Office, and the French National PPT (Post Office.) This agreement established a joint collaboration for the project development of two active, mobile telecommunications satellites, "Telstar" and "Relay."

The first Radome was only temporary, and was installed in order to house the construction site for the antenna. Both this temporary shelter and the final Radome measured 64 meters in diameter. The final Radome, installed in France in the summer of 1962, is now a museum. It is made of Hypalon coated Dacron and weighs over 30 tons. Telstar I was launched from Cape Canaveral (now the Kennedy Space Center) on July 10, 1962.

Telstar I was placed in an elliptical orbit (completed once every 2 hours and 37 minutes), rotating at a 45-degree angle above the Earth's equator. The maximum transmission time between Europe and the United States was 20 minutes per pass. On July 11, 1962 the Telstar Satellite transmission was received in Pleumeur-Bodou, enabling the world's first satellite transmission of a short television program from the United States.



The Pleumeur-Bodou Site

<i>Tentative Schedule (All locations are in Andover, ME)</i>		
<i>Time</i>	<i>Location</i>	<i>Event</i>
9:00 – 11:00 AM	Town Hall	<ul style="list-style-type: none"> ● Welcoming address by dignitary. ● Bi-directional Video Program exchange with Goonhilly (UK) and Pleumeur-Bodou (FR). ● Viewing of the footage from the original broadcast and a Telstar slideshow. ● Signing of guest book
11:00 – 12:00 Noon	Town Hall & Historical Society Building	<ul style="list-style-type: none"> ● Tour of New England Telephony Museum, including Telstar memorabilia and the working spare Telstar 3 satellite. ● Andover Historical Society exhibits adjacent to Town Hall. ● Margaret Chase Smith Museum Exhibits (tentative) ● Slide show of Telstar era photos
12:00 – 1:00 PM	Congregational Church	Lunch (\$10 at the door)
1:00 – 2:00 PM	Town Commons	Dedication of milestone plaque by keynote speaker.
Registration: Please RSVP to brian.conroy@cmpco.com by June 30		

**Institute of Electrical and Electronics Engineers
Maine Section**
Notice of Intent to Elect Officers

In accordance with Article VI, Section D of the IEEE Maine Section Bylaws, notice is hereby given that an election of officers for the 2003 Section year will be held at the Annual Meeting in Yarmouth, ME on Friday May 31, 2002 unless petitions are received as outlined below.

The slate of officers recommended by the Nominating Committee for the 2003 Section year is as follows:

Chair: **Dan Martin**
Vice Chair: **Dave Kotecki**
Secretary: **Ian Goepfert**
Treasurer : **Merlin Smith**
Sr. Member-at-Large: **Scott Dunning**
Jr. Member-at-Large: {open– nominations sought}

From the Maine Section Bylaws:

Article VI

Section E Nominations for any or all offices may be made by petition under the following provisions:

1. Such petition or petitions shall bear the personal signature of a least 10 voting members of the Maine Section.
2. Such petition or petitions must be delivered to the Secretary not later than April 1.
3. The nominee or nominees covered by such petition or petitions shall be included in the regular ballot and designated as such.

Article VII

Section A If no nominations by petition are received by the Secretary as outlined under Article VI, Section E of the Bylaws, then no further announcement to the Section membership is necessary and the election, by voice vote, shall be held at the Annual meeting

Section B If there develops a contest for any elective office as provided for under Article VI, Section E of these Bylaws, then an election by written ballot shall be held.

Maine CS/EDS May Event

**Two Ways to Mess up the MOSFET:
SiGeC Channels & High K Gate Dielectrics**
May 23, 2002

Speaker: Dr. Sanjay Banerjee, *EDS Distinguished Lecturer, Director of the Microelectronics Research Center at The University of Texas at Austin*

Place: McBride Building at National Semiconductor, South Portland

Schedule: Social / Light Dinner @ 5:15
Announcements/Lecture @ 6:15

Registration: To pre-register or obtain more info email or call Jason.Woloszyn@fairchildsemi.com (775-8475) or Chan.Sinnett@nsc.com (541-6274).

Joint Section/PMI Meeting:

**An Introduction to Modeling and Analyzing
Complex Product Development Processes
using the
Design Structure Matrix (DSM) Method**

*Dr. Ali Yassine, MIT Center for Technology, Policy and
Industrial Development*

**Fairchild Semiconductor
May 15, 2002**

The design and development of complex engineering products require the efforts and collaboration of hundreds of participants from diverse backgrounds resulting in complex relationships among both people and tasks. Many of the traditional project management tools (PERT, Gantt and CPM methods) do not address problems stemming from this complexity. While these tools allow the modeling of sequential and parallel processes, they fail to address interdependency (feedback and iteration), which is common in complex product development (PD) projects. To address this issue, a matrix-based tool called the Design Structure Matrix (DSM) has evolved. The DSM method is an information exchange model that allows the representation of complex task (or team) relationships in order to determine a sensible sequence (or grouping) for the tasks (or teams) being modeled. This presentation will cover how the basic method works and how you can use the DSM to improve the planning, execution, and management of complex Product Development projects.

Schedule:

5:30 PM Pizza - \$5.00/person

6:00 PM IEEE/PMI announcements

6:30 PM Program - Speaker Dr. Yassine

Speaker: Dr. Ali Yassine is a research scientist at MIT Center for Technology, Policy and Industrial Development (CTPID). At MIT, his research involves managing the development process of complex engineering products, design process modeling, and IT-enabled concurrent engineering methodologies. His publications appeared in Management Science, IEEE Transactions on Engineering Management, International Journal of Production research, and several other international journals. He has also consulted on numerous occasions for the automotive (Ford Motor Company) and telecommunications (Global One) industries in the areas of decision analysis and product development management.

Location and registration: This talk will be held at Fairchild Semiconductor's Running Hill Road facility at 82 Running Hill Road, South Portland, ME. To register for this course contact Tom Carbone at:

t.carbone@ieee.org or 207-775-4644.

Beacon Publishing

The Beacon is published on a monthly schedule based upon the need to advertise upcoming meetings. All material submitted for the Beacon must be received by the editor no later than the 15th of the month preceding the issue in which it should be included. Sorry, NO EXCEPTIONS!!

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